

station reported by Wadmond¹ in 1932. Continued observation of the colony during the summers of 1935 and 1936 revealed the fact that the white-flowered form was increasing in numbers and spreading to the adjacent roadside. In 1937 it was noted that not only had this form increased in its importance in the original station, but also that several specimens had appeared in a farmyard a half mile distant. Members of the family living upon the farm where the white-flowered form was first noted remember that in 1933 the station consisted entirely of purple-flowered plants. This observation is not reliable, however, for in 1934 the relative number of white-flowered plants was so small as to be evident only to a practised observer.

This form differs from the typical *V. stricta* not only in that its flowers are pure white, but also that its stems completely lack the purple color that is invariably characteristic of the purple-flowered form. These differences seem to indicate that some change has taken place in the genetic make-up of the plant to inhibit the development of the pigment, presumably anthocyanin, which gives the typical form its color. In all other respects the white-flowered form resembles the typical, although in a dozen specimens tagged at random early in the season and collected near the end of the flowering period for the purpose of obtaining seeds, the white-flowered plants were all notably taller, sturdier plants than the purple-flowered. This difference may have been purely accidental. At no time in the four years during which this station has come under the observation of the writer has there appeared any intermediate form. All individuals have been either typical *V. stricta*, or pure white. It is interesting to note here that this lack of intermediates has been observed by Benke³ where *V. stricta* Vent. forma *rosciflora* Benke grows with typical *V. stricta*. A rather careful reconnaissance of the locale of the Wadmond collections failed to reveal any plants of the white-flowered form remaining in 1937.—NORTHERN MONTANA COLLEGE, Havre, Montana.

NORTHEASTWARD EXTENSIONS IN THE MAINE FLORA—II

GEORGE B. ROSSBACH

POTENTILLA CANADENSIS L. is represented only locally northward and eastward into the state of Maine. POTENTILLA SIMPLEX Michx.,

¹ S. C. Wadmond, personal communication.

² RHODORA, xxxiv. 10 (1932).

and more especially its variety *CALVESCENS* Fernald, are well known in the state, and the latter very common through Maine and into Canada.

It is of some note, however, that *P. CANADENSIS* L. should be found as far northeast as Rockport, Knox County, Maine. A collection was taken from open land, in grass-turf, southwest side of Lilly Pond, May 19, 1937, *G. B. Rossbach*. Other stations in Maine, recorded from collections of the New England Botanical Club and Gray Herbarium, are as follows: sandy railroad embankment, Topsham, Sagadahoc Co., May 6, 1898, *E. B. Chamberlain*, no. 556; old cemetery, Bath, Sagadahoc Co., June 3, 1913, *Kate Furbish*; Brunswick, Cumberland Co., July 25, 1901, May 25, 1912, *Kate Furbish*; Cape Porpoise, York Co., May 25, 1895, *M. L. Fernald*; North Berwick, May 1892, and 1893, *J. C. Parlin*; South Berwick, June 13 and 14, 1896, *J. C. Parlin & M. L. Fernald*. The species has been fairly well collected from southern New Hampshire. There is one isolated collection from dry gravelly barrens and fields, Shelburne, Shelburne Co., Nova Scotia, *M. L. Fernald*, no. 2553.

The more isolated northeastern localities from which *P. CANADENSIS* has been collected are, so far as ascertained, areas made suitably clear, or even barren, for the growth of the plant by continued human activity. It is possible that northeast of York Co., Maine *P. canadensis* may be introduced.

The station at Lilly Pond, Rockport, is an old field, in an area cleared and partially quarried, as well as farmed, in the early history of Rockport.

PANAX TRIFOLIUM L., well represented northeastward into southern New Hampshire, becomes more and more local on into Maine.

In Gray Herbarium is one collection from as far northeast as Prince Edward Island: rich deciduous woods, Harmony, Kings Co., July 7, 1914, *M. L. Fernald & Harold St. John*, no. 11138.

But neither the Gray nor the New England Botanical Club Herbaria at Harvard contain any specimens from Maine northeast of East Mercer, Somerset Co., where the plant was collected by *Abbie E. Packard* (no date or number). East Mercer is in the valley of the Kennebec, about five miles from that river, and the other localities in the state are in the same drainage or some others to the southwest.

On May 17, 1937 the writer came upon a small patch of *PANAX TRIFOLIUM* in a rich hollow in heavy mixed woods near Pitcher Pond, Northport, Waldo Co.

Mr. *Thomas Ripley*, a local botanist of Lincolnville, Maine, has shown me specimens of *Panax trifolium* which he collected several years ago in a rich woodland near Lake Megunticook, Lincolnville, Waldo Co.

BIDENS COMOSA (Gray) Wiegand appears, in herbaria, to be very local in Maine. It has been collected from a damp field, Orono, Penobscot Co., Sept. 19, 1889, by *M. L. Fernald*, and the specimen is in the herbarium of the New England Botanical Club. In recent years it was collected by the writer from boggy woods near Ducktrap River, Lincolnville, Waldo Co. This seeming rarity of *BIDENS COMOSA* in this region may, of course, be due to poor representation of the species in herbaria.

Collections made by the writer and referred to in this article are to be found in the herbarium of the New England Botanical Club.

DUDLEY HERBARIUM,
Stanford University.

WHERRY'S GUIDE TO THE FERNS OF THE CENTRAL ATLANTIC STATES.¹—Dr. Wherry has probably a wider field knowledge of the ferns of eastern North America than anyone else now living. It is therefore good news that some of this knowledge has been made conveniently available to the public, even in the severely limited space of a pocket manual, covering only the states from New Jersey and Pennsylvania to Virginia.

Brevity has plainly been a controlling consideration in the preparation of the book. Descriptions are rigidly confined to a single page; the index has likewise been cut to one, rather confusingly arranged, page; and only the rudiments of a key have been admitted. But the author has contrived to include an ample, original and, for the layman, most helpful glossary of technical terms; essential synonymy, given intelligibility for the beginner by being thrown into narrative form; descriptions giving characters which, though not always technically the most important, are diagnostic and contrasting; and detailed and accurate statements of ranges and habitats such as have not appeared in previous popular works. In addition, supplementary chapters give good advice as to the cultivation of ferns and the sort of soils and other conditions needed by a considerable list of species.

Except in *Isoetes*, where they all look alike, each species is illustrated by a habit-sketch and drawings of details, placed on the page opposite the description. In the absence of a key, these illustrations are the primary means of making determinations. Not all of them are equal to this function: though many show an excellent faculty for catching the characteristic posture of the plants concerned and are otherwise clearly and skillfully done, some are stiff and conventionalized to the point of misrepresentation. I doubt if the average user, standing before a lush clump of Christmas fern in the woods, would suspect it to be the same as the attenuated design which does duty for it in the book. High magnification would be needed to reveal in the minute glandularity of *Woodsia obtusa* and *W. scopulina* anything resembling the

¹ Wherry, Edgar T. Guide to Eastern Ferns. Science Press Printing Co., Lancaster, Pennsylvania. [Dec.] 1937, 220 pp., 96 ill. \$1.00